



## ABSTRACT

The invention relates to a method for the stable inversion of a DNA fragment upon recombinase-mediated rearrangements using two sets of two incompatible site-specific recombinase targeting sites (SSRTS) in the same order but in reverse orientation flanking the DNA fragment to be inverted. The invention also relates to a method for the stable inversion of the DNA fragment upon rearrangement mediated by a recombinase such as Cre recombinase. The invention also relates to a method for obtaining a transgenic cell of which at least one allele of a DNA sequence of interest is invalidated by a process of conditional deletion and the genome of which has a reporter gene inserted at the place of the DNA fragment deleted by the process of conditional deletion. A method to generate targeting sites to perform site-specific recombination mediated cassette exchange is also provided.